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COMBINED DECLARATION AND POWER OF ATTORNEY

As a below named inventor, I hereby declare that:

This declaration is of the following type:

- ☒ original
- ☐ divisional
- ☐ continuation
- ☐ continuation-in-part

INVENTORSHIP IDENTIFICATION

My residence, post office address and citizenship are as stated below next to my name. I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

TITLE OF INVENTION

**"REACTIVE PRECLEAN PRIOR TO METALLIZATION FOR
SUB-QUARTER MICRON APPLICATION"**

SPECIFICATION IDENTIFICATION

The specification of which:

- ☒ filed herewith;
- ☐ was filed on _____, under Serial No. _____, executed on even date herewith; or
- ☐ Express Mail No. _____ (Serial No. not yet known)
and was amended on _____ (if applicable)
- ☐ was described and claimed in PCT International Application No. _____
filed on _____ and as amended under PCT Article 19 on _____.

ACKNOWLEDGMENT OF REVIEW OF PAPERS AND DUTY OF CANDOR

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose all information I know to be material to patentability in accordance with Title 37, Code of Federal Regulations, §1.56,

and which is material to the examination of this application; namely, information where there is a substantial likelihood that a reasonable Examiner would consider it important in deciding whether to allow the application to issue as a patent, and

- ☐ In compliance with this duty there is attached an Information Disclosure Statement in accordance with 37 CFR §1.98.

PRIORITY CLAIM (35 U.S.C. §119)

I hereby claim foreign priority benefits under Title 35, United States Code, §119, of any foreign application(s) for patent or inventor's certificate or of any PCT international application(s) designating at least one country other than the United States of America listed below, and have also identified below any foreign application(s) for patent or inventor's certificate or any PCT international application(s) designating at least one country other than the United States of America filed by me on the same subject matter having a filing date before that of the application(s) of which priority is claimed.

☒ No such applications have been filed.

☐ Such applications have been filed as follows:

- A. Prior foreign/PCT application(s) filed within 12 mos. (6 mos. for design) prior to this application, and any priority claims under 35 U.S.C. §119

<u>Country/PCT</u>	<u>Application No</u>	<u>Date Filed</u>	<u>Priority Claimed</u>
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☐ Yes ☐ No

☐ Yes ☐ No

☐ Yes ☐ No

- B. All foreign application(s), if any, filed more than 12 mos. (6 mos for design) prior to this U.S. application

Country:

Application No:

Filing date:

PRIOR CLAIM (35 U.S.C. §120)

I hereby claim the benefit under Title 35, United States Code, Section 120, of any United States application(s) or PCT international application(s) designating the United States of America that is/are listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in that/those prior application(s) in the manner provided by the first paragraph of Title 35, United States Code, Section 112, I acknowledge the duty to disclose information that is material to the examination of this application (namely, information where there is substantial likelihood that a reasonable Examiner would consider it important in deciding whether to allow the application to issue as a patent) which occurred between the filing date of the prior application(s) and the national or PCT international filing date of this application.

☐ No such applications have been filed

☐ Such application have been filed, as follows:

<u>Serial No.</u>	<u>Filing Date</u>	<u>Status</u>
		<u>Patented Pending</u> <u>Abandoned</u>

(None)

POWER OF ATTORNEY

I hereby appoint the following attorneys and/or agents to prosecute this application and transact all business in the Patent and Trademark Office connected therewith:

Michael L. Sherrard	Registration No. 28,041
Peter J. Sgarbossa	Registration No. 25,610
Donald Verplancken	Registration No. 33,217
Lawrence Edelman	Registration No. 25,226
Michael B. Einschlag	Registration No. 29,301
Leslie A. Weise	Registration No. 36,305
Raymond Kam-On Kwong	Registration No. 37,165
James C. Wilson	Registration No. 35,412
B. Todd Patterson	Registration No. 37,906
Jeffrey L. Streets	Registration No. 37,453

Send correspondence to:

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Santa Clara, CA 95052

Direct telephone calls to:

B. Todd Patterson
Patterson & Streets, L.L.P.
3040 Post Oak Blvd., Suite 1500
Houston, Texas 77056
(713) 623-4844

DECLARATION

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and, further, that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Sec. 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patents issued thereon.

Full name of sole or first inventor: Suchitra Subrahmanyam

Inventor's signature: S. Subrahmanyam Date: 12-23-97
Residence: San Jose, California 94086
Post Office Address: 988 Alpine Terrace #4
U.S.A.

Country of Citizenship: India

Full name of second inventor: Ljiang-Yuh Chen

Inventor's signature: Ljiang-Yuh Chen Date: 12-23-97
Residence: Foster City, California 94404
Post Office Address: 1400 Melbourne Street
U.S.A.

Country of Citizenship: Taiwan

Full name of third inventor: Roderick Craig Mosely

Inventor's signature: Roderick Craig Mosely Date: 12-23-97
Residence: Pleasanton, California 94588
Post Office Address: 4337 Diavila Avenue
U.S.A.

Country of Citizenship: U.S.A.

ASSIGNMENT FOR APPLICATION FOR PATENT

WHEREAS:

Name and Address
of Inventor:

- 1) Suchitra Subrahmanyam
988 Alpine Terrace #4
Sunnyvale, California 94086
- 2) Liang-Yuh Chen
1400 Melbourne Street
Foster City, California 94404
- 3) Roderick Craig Mosely
4337 Diavila Avenue
Pleasanton, California 94588

(hereinafter referred to as Assignor), have invented a certain invention entitled:

**"REACTIVE PRECLEAN PRIOR TO METALLIZATION FOR
SUB-QUARTER MICRON APPLICATION"**

for which application for Letters Patent in the United States is being executed and filed on even date herewith; and

WHEREAS, Applied Materials, Inc., a corporation of the State of Delaware, having a place of business at 3050 Bowers Avenue, Santa Clara, California 95054 (hereinafter referred to as Assignee), is desirous of acquiring the entire right, title and interest in and to said application (hereinafter referred to as Application), and the invention disclosed therein (hereinafter referred to as Invention), and in and to all embodiments of the Invention, heretofore conceived, made or discovered by said Assignor, and in and to any and all patents, inventor's certificates and other forms of protection (hereinafter referred to as Patents) thereon granted in any and all countries and groups of countries.

NOW, THEREFORE, in consideration of good and valuable consideration acknowledged by said Assignor to have been received in full from said Assignee:

1. Said Assignor hereby sells, assigns, transfers and conveys to Assignee the full and exclusive right, title and interest (a) in and to said Application and said Invention; (b) in and to all rights to apply for patents on said Invention in any and all countries pursuant to the International Convention for the Protection of Industrial Property or otherwise; (c) in and to any and all Applications filed and any and all Patents granted on said Invention in any and all countries and groups of countries, including each and every Application filed and each and every Patent granted on any application which is a division, substitution, or continuation of said Application; and (d) in and to each and every reissue or extension of any of said Patents.

2. Said Assignor hereby covenants and agrees to cooperate with said Assignee to enable said Assignee to enjoy to the fullest extent the right, title and interest to said Invention herein conveyed in

any and all countries and groups of countries. Such cooperation by said Assignor shall include prompt production of pertinent facts and documents, giving testimony, execution of petitions, oaths, specifications, declarations or other papers, and other assistance all to the extent deemed necessary or desirable by said Assignee (a) for perfecting in said Assignee the right, title and interest herein conveyed; (b) for prosecuting any of said applications; (c) for filing and prosecuting substitute, divisional, continuing or additional applications covering said Invention; (d) for filing and prosecuting applications for reissuance of any of said Patents; (e) for interference or other priority proceedings involving said Invention; and (f) for legal proceedings involving said Invention and any application therefor and any Patents granted thereon, including without limitation opposition proceedings, cancellation proceedings, priority contests, public use proceedings, infringement actions and court actions; provided, however, that the expense incurred by said Assignor in providing such cooperation shall be paid for by said Assignee.

3. The term and covenants of this agreement shall inure to the benefit of said Assignee, its successors, assigns and other legal representatives, and shall be binding upon said Assignor, his respective heirs, legal representatives and assigns.

4. Said Assignor hereby warrants and represents that he has not entered and will not enter into any assignment, contract, or understanding in conflict herewith.

IN WITNESS WHEREOF, the said Assignor has executed and delivered this instrument to said Assignee on the dates indicated below.

1) 12-23, 1997

S. Suchitra
SUCHITRA SUBRAHMANYAN

2) 12-23, 1997

Liang-Yuh Chen
LIANG-YUH CHEN

3) 12-23, 1997

Roderick Craig Mosely
RODERICK CRAIG MOSELY